

DEPARTMENT OF ENVIRONMENTAL QUALITY
Environmental Assessment

PERMITTING AND COMPLIANCE DIVISION – WATER PROTECTION BUREAU

Name: Luzenac - Yellowstone Mine

Type of Activity: Open Pit Talc Mining

Location: Sections 3, 4, 5 and 9, Township 9 South, Range 1 West and Sections 32, 33 and 34 of Township 8 South, Range 1 West

City/Town: 10 miles south of Cameron, MT

County: Madison

Description of Project:

Luzenac America Inc.'s Yellowstone Mine currently has an existing individual Montana Pollutant Discharge Elimination System (MT0028584) permit to discharge mine pit dewatering wastewater, to Johnny Gulch Drainage via permitted Outfall 001. The permittee has proposed to modify the previously permitted water management structures and add a new outfall, Outfall 002 to accommodate planned life of mine expansion. Sources of wastewater contributing to flows at Outfall 002 will include Johnny Gulch run-on, discharge from Outfall 001 and stormwater and mine drainage run-off from other disturbed and undisturbed areas at the facility. Modifications to water management facilities include increase in wastewater storage capacity, such that the facility is not expected to discharge from Outfall 002 except after a 15 year 24 hours storm event of 2.01 inches precipitation (or equivalent snow melt event).

Agency Action and Applicable Regulations:

The pending Agency action is renewal and modifications of the existing MPDES permit number MT0028584. Regulations to this permit renewal and modification include Section 318, 402, and 405 of the Federal Clean Water Act (CWA); 40 CFR, Parts 122-125, 129, 133, 136, 400-471 and 503; Montana Water Quality Act (WQA) at 75-5-101 *et seq.*; Administrative Rules of Montana (ARM) 17.30.601-670, 701-718, 1201-1209, 1301-1387; and, the Montana Numeric Water Quality Standards, Department Circular DEQ-7.

Summary of Issues:

The primary issue of concern within this permit modification and renewal is the potential for storm water run-off to discharge from the mine facilities during current operations and/or life of mine expansion activities. The permittee has proposed to retain all run-off resulting from precipitation events up to the 15 yr 24 hour storm event. The permit requires the permittee to update and modify the site wide drainage plan; and, maintain and submit to the Department the site wide drainage plan in the form of a Storm Water Pollution Prevention Plan. This has been implemented to ensure that reasonable land, soil, and water conservation practices are applied pursuant to 75-5-317, MCA, such that existing and anticipated beneficial uses will be fully protected in the event a discharge from the mine property occurs via Outfall 002.

Affected Environment & Impacts of the Proposed Project:

Y = Impacts may occur (explain under Potential Impacts). *Include frequency, duration (long or short term), magnitude, and context for any significant impacts identified. Reference other permit analyses when appropriate (ex: statement of basis). Address significant impacts related to substantive issues and concerns. Identify reasonable feasible mitigation measures (before and after) where significant impacts cannot be avoided and note any irreversible or irretrievable impacts. Include background information on affected environment if necessary to discussion.*

N = Not present or No Impact will likely occur. *Use negative declarations where appropriate (wetlands, T&E, Cultural Resources).*

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are soils present which are fragile, erosive, susceptible to compaction, or unstable? Are there unusual or unstable geologic features? Are there special reclamation considerations?	[N] See Mine Life Extension Amendment to Operating Permit 00005 Draft Environmental Assessment (December 2004) for potential impacts and mitigations.
2. WATER QUALITY, QUANTITY AND DISTRIBUTION: Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?	[N] The proposed permit renewal requires the permittee to update and modify the existing site wide drainage plan; and, maintain and submit to the Department the site wide drainage plan in the form of a Storm Water Pollution Prevention Plan. This permit condition has been implemented to ensure that reasonable land, soil, and water conservation practices are applied pursuant to 75-5-317, MCA, such that existing and anticipated beneficial uses will be fully protected in the event a discharge from the mine property occurs via Outfall 002.
3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?	[N] Some increase in particulate pollutants may be expected during construction of additional water management facilities. No significant air quality impacts are expected. See Mine Life Extension Amendment to Operating Permit 00005 Draft Environmental Assessment (December 2004) for potential impacts and mitigations.
4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be significantly impacted? Are any rare plants or cover types present?	[N] See Mine Life Extension Amendment to Operating Permit 00005 Draft Environmental Assessment (December 2004) for potential impacts and mitigations.
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?	[N] See Mine Life Extension Amendment to Operating Permit 00005 Draft Environmental Assessment (December 2004) for potential impacts and mitigations.
6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified	[N] See Mine Life Extension Amendment to Operating Permit 00005 Draft Environmental Assessment (December 2004) for potential impacts and mitigations.

IMPACTS ON THE PHYSICAL ENVIRONMENT	
habitat present? Any wetlands? Species of special concern?	
7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?	[N] See Mine Life Extension Amendment to Operating Permit 00005 Draft Environmental Assessment (December 2004) for potential impacts and mitigations.
8. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?	[N] See Mine Life Extension Amendment to Operating Permit 00005 Draft Environmental Assessment (December 2004) for potential impacts and mitigations.
9. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project? Will new or upgraded powerline or other energy source be needed?	[N] See Mine Life Extension Amendment to Operating Permit 00005 Draft Environmental Assessment (December 2004) for potential impacts and mitigations.
10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other activities nearby that will affect the project?	[N] See Mine Life Extension Amendment to Operating Permit 00005 Draft Environmental Assessment (December 2004) for potential impacts and mitigations.

IMPACTS ON THE HUMAN ENVIRONMENT	
11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	[N] See Mine Life Extension Amendment to Operating Permit 00005 Draft Environmental Assessment (December 2004) for potential impacts and mitigations.
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	[N] Upon occasion Outfall 002 may discharge to the Ruby Creek Irrigation Ditch, the frequency of effluent monitoring has been designed such that any potential impacts to agricultural beneficial uses of the water are detected. The re-opener provision within the discharge permit allows for re-evaluation and placement of limits on this outfall to ensure agricultural beneficial uses are protected if necessary.
13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	[N] See Mine Life Extension Amendment to Operating Permit 00005 Draft Environmental Assessment (December 2004) for potential impacts and mitigations.
14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	[N] See Mine Life Extension Amendment to Operating Permit 00005 Draft Environmental Assessment (December 2004) for potential impacts and mitigations.
15. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?	[N] See Mine Life Extension Amendment to Operating Permit 00005 Draft Environmental Assessment (December 2004) for potential impacts and mitigations.
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND	[N] See Mine Life Extension Amendment to Operating Permit 00005 Draft Environmental Assessment (December 2004) for potential

IMPACTS ON THE HUMAN ENVIRONMENT	
GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	impacts and mitigations.
17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?	[N] See Mine Life Extension Amendment to Operating Permit 00005 Draft Environmental Assessment (December 2004) for potential impacts and mitigations.
18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	[N] See Mine Life Extension Amendment to Operating Permit 00005 Draft Environmental Assessment (December 2004) for potential impacts and mitigations.
19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	[N] See Mine Life Extension Amendment to Operating Permit 00005 Draft Environmental Assessment (December 2004) for potential impacts and mitigations.
20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	[N] See Mine Life Extension Amendment to Operating Permit 00005 Draft Environmental Assessment (December 2004) for potential impacts and mitigations.
21. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[N] See Mine Life Extension Amendment to Operating Permit 00005 Draft Environmental Assessment (December 2004) for potential impacts and mitigations.
22(a). PRIVATE PROPERTY IMPACTS: Are we regulating the use of private property under a regulatory statute adopted pursuant to the police power of the state? (Property management, grants of financial assistance, and the exercise of the power of eminent domain are not within this category.) If not, no further analysis is required.	[N] See Mine Life Extension Amendment to Operating Permit 00005 Draft Environmental Assessment (December 2004) for potential impacts and mitigations.
22(b). PRIVATE PROPERTY IMPACTS: Is the agency proposing to deny the application or condition the approval in a way that restricts the use of the regulated person's private property? If not, no further analysis is required.	[]
22(c). PRIVATE PROPERTY IMPACTS: If the answer to 21(b) is affirmative, does the agency have legal discretion to impose or not impose the proposed restriction or discretion as to how the restriction will be imposed? If not, no further analysis is required. If so, the agency must determine if there are alternatives that would reduce, minimize or eliminate the restriction on the use of private property, and analyze such alternatives. The agency must disclose the potential costs of identified restrictions.	[]

23. Description of and Impacts of other Alternatives Considered:
- A. No Action: Potential for unmonitored run-off discharges from lower Johnny Gulch mine facilities.
- B. Approval with modification: Not applicable.
24. Summary of Magnitude and Significance of Potential Impacts: See Mine Life Extension Amendment to Operating Permit 00005 Draft Environmental Assessment (December 2004) and EIS for potential impacts and mitigations.
25. Cumulative Effects: See Mine Life Extension Amendment to Operating Permit 00005 Draft Environmental Assessment (December 2004) and EIS for potential impacts and mitigations.
26. Preferred Action Alternative and Rationale: Issue MPDES permit renewal and modification as described in the 2006 Statement of Basis and Draft Permit.

Recommendation for Further Environmental Analysis:

☐ EIS ☐ More Detailed EA ☐ No Further Analysis
Rationale for Recommendation: The proposed modification will not impact water quality if wastewater discharge meets permit effluent limits.

27. Public Involvement: A 30-day public notice of the proposed MPDES permit renewal and modification was issued beginning March 20, 2006 and ending April 19, 2006.
28. Persons and agencies consulted in the preparation of this analysis: See Statement of Basis for references cited during technical analysis of the proposed action.

EA Checklist Prepared By:

Paul Skubinna
(Name)

March 15, 2006
Date

Approved By:

(Print: name & title)

Signature

Date